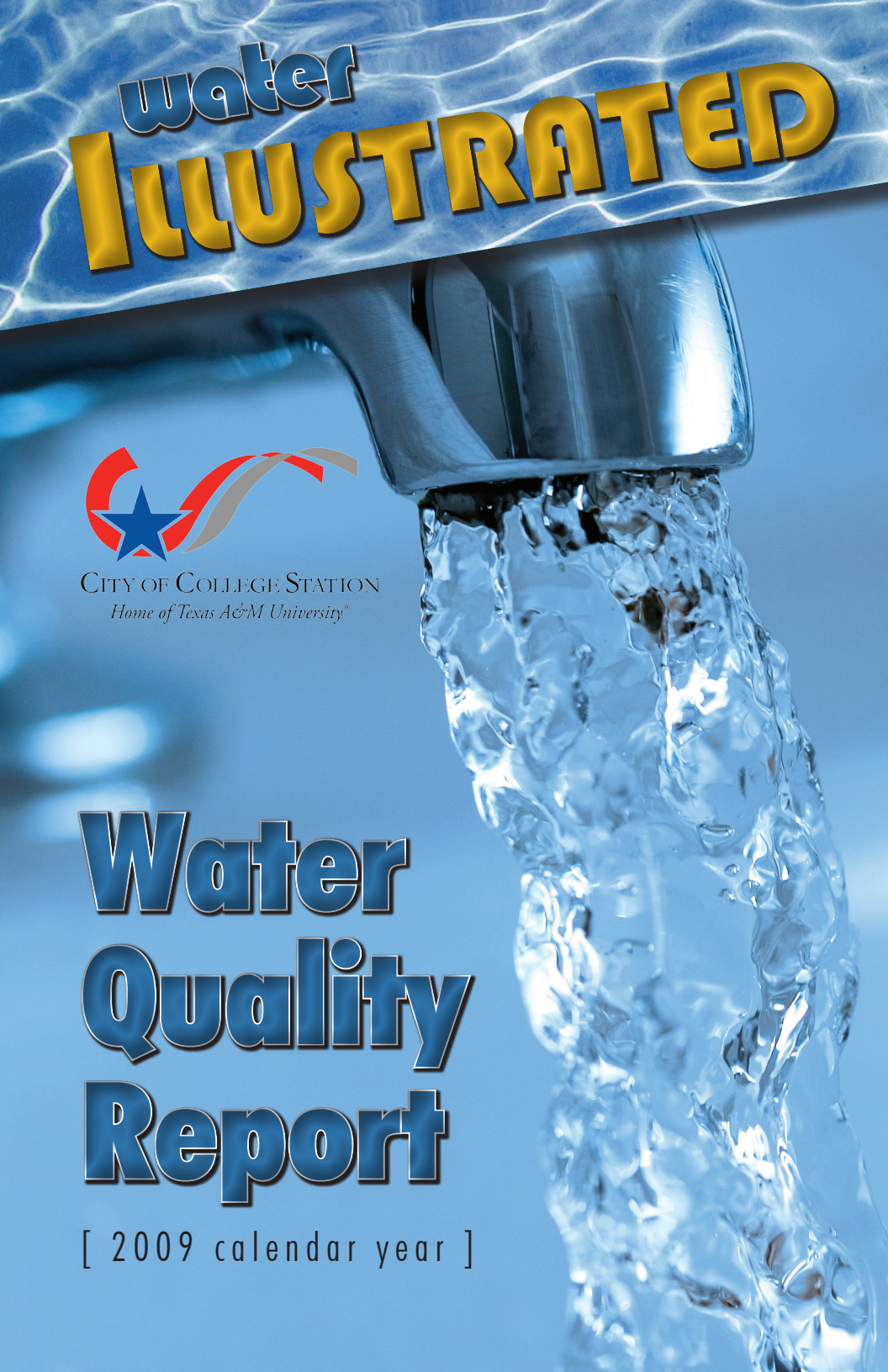
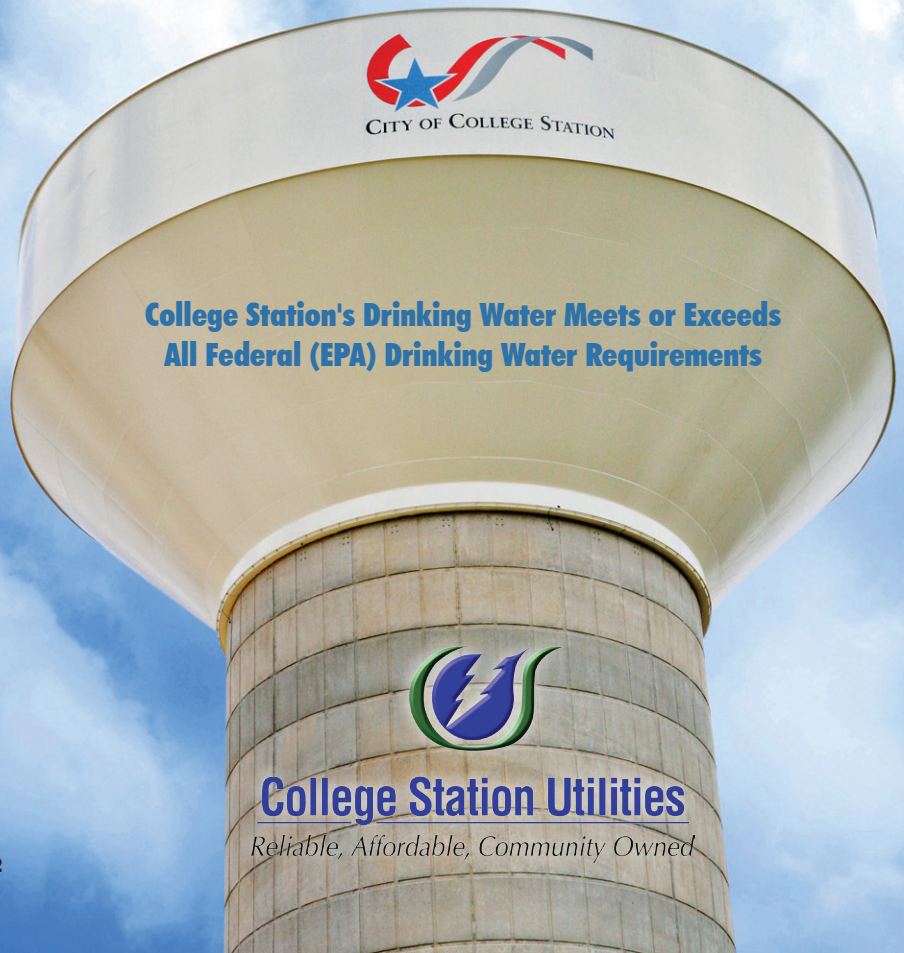

water
ILLUSTRATED
CITY OF COLLEGE STATION
Home of Texas A&M University®
Water
Quality
Report
[2009 calendar year]

2009 Annual Drinking Water Quality Report

Your annual Drinking Water Quality Report provides an analysis of recent tests required by the Texas Commission on Environmental Quality (TCEQ) and describes the efforts of College Station Water Services to provide you with reliable drinking water through the operation of our municipal water distribution system. Public water systems are required by the 1996 Safe Drinking Water Act Amendments to provide information to their water customers. College Station's drinking water system is rated "Superior" by the TCEQ and meets all state and federal standards. College Station Water Services strives to provide its customers with quality drinking water and outstanding customer service.



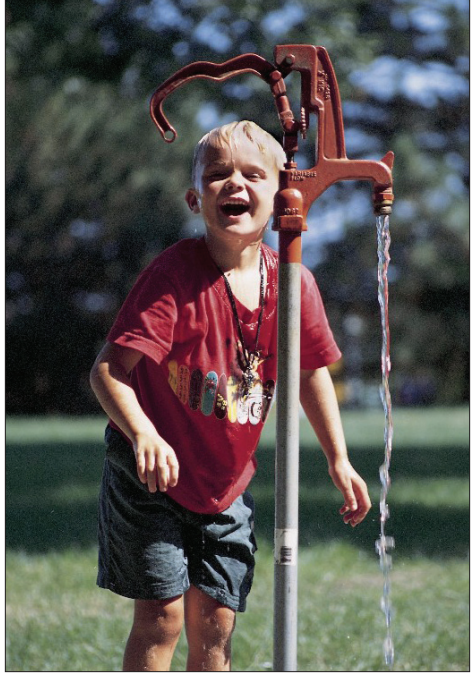
Public Participation

The College Station City Council meets on the second and fourth Thursday of every month. The City Council Chamber is located in College Station City Hall at 1101 Texas Avenue. Council meetings are open to the public and provide an opportunity for residents to share their concerns on any city-related matter. For more information, call **979.764.3510**. To learn about future public meetings concerning your drinking water, or to request one, please call Water Services at **979.764.3660**.

Special Notice

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, and people with HIV/AIDS or other immune problems:

You may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at **1.800.426.4791**.



Water Illustrated

COLLEGE STATION UTILITIES WATER SERVICES

David Coleman, Director
Jennifer Nations, Water Resource Coord.

CITY COUNCIL

Nancy Berry, Mayor
John Crompton, Place 1
Jess Fields, Place 2
Dennis Maloney, Place 3
Katy-Marie Lyles, Place 4
Lawrence Stewart, Place 5
David Ruesink, Place 6

Glenn Brown, City Manager
Kathy Merrill, Assistant City Manager
David Neeley, Assistant City Manager

Public Water System ID: TX0210002

Water: At the Source

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

About Bottled Water

All drinking water may contain contaminants. When drinking water meets federal standards, there may not be any health-based benefits to purchasing bottled water or point-of-use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor or color of drinking water, please contact College Station Water Services at **979.764.3660**.

Where do we get our Drinking Water?

College Station's drinking water is obtained from groundwater sources, specifically the Simsboro and Carrizo formations of the Carrizo-Wilcox Aquifer Group, and the Sparta aquifer. A Source Water Susceptibility Assessment for your drinking water sources is being updated by the Texas Commission on Environmental Quality. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. Some of this source water assessment information will be available later this year through Texas Drinking Water Watch, which can be found at tceq.state.tx.us/DWW/. For more information on source water assessments and protection efforts, please contact us.

2009 Water Quality Test Results

The following tables show all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

Inorganic Contaminants

YEAR SAMPLED	SUBSTANCE	AVERAGE LEVEL	RANGE DETECTED	VIOLATION? Y / N	MCL	MCLG	POSSIBLE SOURCE(S) OF CONTAMINANT
2005	Copper	0.002 ppm	0.002 ppm - 0.002 ppm	N	1.3 ppm	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
2009	Fluoride	0.312 ppm	0.211 ppm - 1.24 ppm	N	4 ppm	2 ppm	Water additive to promote strong teeth; erosion of natural deposits
2009	Nitrate	0.15 ppm	0.15 ppm - 0.15 ppm	N	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits

Microbiological Contaminants

YEAR SAMPLED	SUBSTANCE	HIGHEST MONTHLY % OF POSITIVE SAMPLES	VIOLATION? Y / N	MCL	MCLG	POSSIBLE SOURCE(S) OF CONTAMINANT
2009	Total Coliform Bacteria	0.95%	N	Presence in > 5% of samples in one month	0	Naturally present in the environment

Total coliform bacteria are used as indicators of microbial contamination of drinking water because they are hardier than many disease-causing organisms. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease, so their absence from water is a good indication that the water is microbiologically safe for human consumption.

In 2009, a total of 1,230 samples, at least 100 per month, were collected by Environmental Services personnel and analyzed by the Brazos County Health Department. Out of these 1,230 samples, one tested positive for Total Coliform Bacteria. The positive location was immediately re-sampled and two additional samples adjacent to the positive location were sampled. All repeat samples tested negative for the presence of Total Coliform Bacteria. In addition, Fecal Coliform Bacteria was not detected in any of these monthly tests.

Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800.426.4791 or at epa.gov/safewater/lead.

Definitions

Maximum Residual Disinfectant Level (MRDL)
The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Maximum Contaminant Level (MCL)
The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)
The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Abbreviations

pCi/L
Picocuries per liter (a measure of radioactivity)

ppm
Parts per million, or milligrams per liter (mg/L)

ppb
Parts per billion, or micrograms per liter (µg/L)

Disinfectant Residual and Disinfectant By-Products

YEAR SAMPLED	SUBSTANCE	AVERAGE LEVEL	RANGE DETECTED	VIOLATION? Y / N	MCL*	MCLG*	POSSIBLE SOURCE(S) OF CONTAMINANT
2009	Chlorine	1.67 ppm	1.2 ppm - 2.06 ppm	N	4 ppm	2 ppm	Water additive to control microbes
2009	Total Trihalomethanes (TTHM)	21 ppb	21 ppb - 21 ppb	N	80 ppb	0 ppb	Byproduct of drinking water disinfection
2009	Haloacetic Acids (HAA5)	2 ppb	2 ppb - 2 ppb	N	60 ppb	0 ppb	Byproduct of drinking water disinfection

**Maximum contaminant level for chlorine is expressed as MRDL and MRDLG*

Lead and Copper

YEAR SAMPLED	SUBSTANCE	90TH PERCENTILE*	ACTION LEVEL	VIOLATION? Y / N	SITES EXCEEDING ACTION LEVEL	POSSIBLE SOURCE(S) OF CONTAMINANT
2009	Lead	0.0018 mg/L	15 ppb	N	0	Corrosion of household plumbing systems; erosion of natural deposits
2009	Copper	0.16 mg/L	1.3 ppm	N	0	Corrosion of household plumbing systems; erosion of natural deposits

The Texas Commission on Environmental Quality's analysis of these results shows that College Station's water does not exceed the Action Level for Lead or Copper. The 90th percentile based on these samples is 0.0018 milligrams per liter (mg/L) for lead and 0.16 mg/L for copper. 90 percent of College Station tap water samples collected were at or below these levels. *The Environmental Protection Agency considers the 90th percentile the same as an "average" value for other contaminants. If more than 10 percent of tap water samples collected from a water system exceed the Action Level for lead (0.015 mg/L) or copper (1.3 mg/L), water systems must take additional treatment measures.

Secondary and Other Non-Regulated Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern but they may greatly affect the appearance and taste of your water.

YEAR SAMPLED	SUBSTANCE	DETECTED LEVELS	UNITS	LIMIT
2008	Alkalinity (Bicarbonate)	431	mg/L	No recommendation
2008	Alkalinity (Carbonate)	<1	mg/L	No recommendation
2008	Alkalinity (Phenolphthalein)	<1	mg/L	No recommendation
2009	Alkalinity (Total)	366	mg/L	No recommendation
2002	Aluminum	0.008	mg/L	0.05 to 0.2
2002	Calcium	2.96	mg/L	No recommendation
2008	Chloride	51	mg/L	250
2002	Iron	ND	mg/L	0.3
2002	Manganese	0.01	mg/L	0.05
2002	Magnesium	0.65	mg/L	No recommendation
2008	pH	8.3	N/A	>7.0
2002	Sodium	200	mg/L	No recommendation
2008	Diluted Conductance	882	µmhos/cm	No recommendation
2008	Sulfate	12	mg/L	300
2002	Total Hardness (as CaCO3)	8.14	mg/L	No recommendation
2008	Total Dissolved Solids	489	mg/L	1,000

Get your head examined.
Broken or misdirected sprinkler heads are a huge water waster. Inspect your sprinkler system once a month during the growing season to make sure only the green stuff is getting water.

Seek the leaks.
Report suspected leaks and water line breaks to College Station Utilities Dispatch at **764.3638**. Check for leaks and fix them immediately. A slow leak of one drip per second wastes approximately 250 gallons of water each month.

Water deep! Your grass will keep.
Water slowly and deeply, and STOP at the point of runoff, which could be as soon as 10 -20 minutes. Let the water soak in and then water again, repeating the cycle until the soil is wet to a depth of about six inches.

Twice is nice.
Water just twice a week by following the Recommended Watering Schedule found on Page 11 of this report.

Fall back into good habits.
As fall approaches, don't forget to re-program your irrigation controller and make sure it has a battery to back-up your good programming efforts.

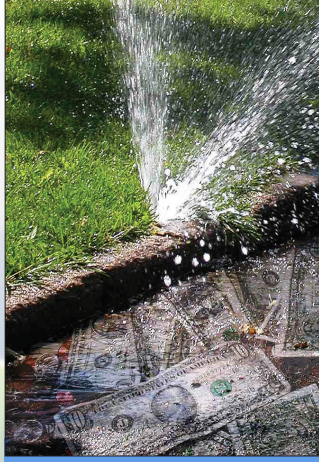
Save Water. Save Money.

It's not neat to water the street!
Adjust sprinklers so they water ONLY grass and other vegetation, not sidewalks or pavement.

Sweepers, keepers.
Save eight gallons of water every minute by using a broom instead of a hose to clean sidewalks, porches, and other hard surfaces.

Sprinklers nixed 10 to 6.
Avoid running sprinklers between 10 a.m. and 6 p.m. Up to 60 percent of water applied during this period is wasted due to evaporation.

Get ahead! Mulch the bed.
Mulch trees and plants to retain soil moisture and prevent evaporation. Fall is a great time to replenish mulch in the landscape.



Free Irrigation Check-Up

July is **Smart Irrigation Month**, so sign up for a free irrigation check-up today! This service is available to anyone with an automatic in-ground irrigation system. An irrigation check-up includes looking for broken or misdirected sprinkler heads, leaks and a review of how your irrigation controller works, as well as suggested run times for your landscape. To schedule your free irrigation check-up, call **979.764.6223** or email Water Resource Coordinator Jennifer Nations **(jnations@cstx.gov).** Put "Irrigation Check-Up" in the subject line.

Smart Watering Tips

How Much, When and How?

Evapotranspiration (ET) is a measurement of how much water a plant loses through the soil (evaporation) and through its leaves (transpiration). A warm-season turf grass in full sun, on a hot and windy day, will have a higher rate of ET, and need more water, than grass located in a shady area protected from wind. Texas AgriLife Extension maintains weather stations all over Texas and uses this weather data to calculate ET values for different regions of Texas. College Station's weather station is the Texas A&M Golf Course.

Getting Started With ET

ET requirements typically are given in inches of water, including rainfall. But how many inches of water does your sprinkler put out in a given time period? Use this simple formula to determine how much water your sprinkler applies in a given time period:

- Set three to five empty shallow flat-bottomed cans at different distances from the sprinkler, with the last can near the edge of sprinkler coverage.
- Run the sprinkler for 15 minutes.
- Add the inches of water in all cans together and divide the total inches by the number of cans to obtain an average.
- Multiply the average by four to determine how many inches of water the sprinkler puts out in one hour, or multiply the average by two to determine how many inches of water the sprinkler puts out in 30 minutes.

JULY SMART IRRIGATION MONTH

How Often Should Grass be Watered?

It's best to water only once a week and give your grass a deep soaking every time you water. If you have soil with poor drainage, you may need to water twice a week for a shorter time. To find out how often to water in the summer, locate your grass type in the Watering Frequency for Turf Grass table below. Another easy tip is to look for footprints — if you leave footprints on the grass after walking on it, it's time to water. If the grass springs back, just relax and enjoy your beautiful turf.

Watering Frequency for College Station Turf Grasses*

GRASS	FREQUENCY
Buffalograss	Every 2-5 weeks**
Bermuda	Every 7-10 days
Zoysia	Every 7-10 days
St. Augustine	Every 5 days

* *Adapted from Texas AgriLife Extension publications.*

** *Buffalograss may not need supplemental watering at all in many areas of Texas where it is adapted to grow.*

Recommended Watering Schedule

This watering schedule was developed by College Station Water Services to help our customers use our precious drinking water efficiently while still maintaining a healthy landscape. Compliance with the watering days in the schedule is voluntary in Stage 1 of the Drought Contingency Plan (May 1 - September 30). Compliance is mandatory upon a declaration of Stage 2 or Stage 3 by the city manager under the city's Drought Contingency Plan. If you have questions about the watering schedule, please call **979.764.3660** or email Water Resource Coordinator **Jennifer Nations** (jnations@cstx.gov). You can also view the Drought Contingency Plan at cstx.gov.

Watering Schedule for 2010

CUSTOMERS	RECOMMENDED DAY (S)
Commercial and/or Multi-Family	Monday and/or Friday
Residential Even-Numbered Address	Tuesday and/or Saturday
Residential Odd-Numbered Address	Thursday and/or Sunday

Water Fun Facts

- **70%** of the earth is covered with water.
- **97%** of earth's water is in the oceans.
- Only **1%** of the earth's water can be used as drinking water.
- **2%** of the world's water is frozen in the polar ice caps.
- Although a person can live for more than a month without food, a person can only live about **one week** without water.
- The average person in the United States uses **80 to 100** gallons of water each day.
- It takes **2** gallons to brush your teeth, **2 to 7** gallons to flush a toilet, and **25 to 50** gallons to take a shower.
- It takes **2,072** gallons of water to make four new tires.
- One part per billion is equal to **one cent** in $10 million.
- For just **$1**, you can get **450** gallons of fresh, clean College Station drinking water — straight from your tap!

College Station Utilities
Reliable, Affordable, Community Owned

P.O. Box 9960
1601 Graham Road
College Station, TX 77842

CITY OF COLLEGE STATION
Quick Reference Guide

CITY SECRETARY
Birth/Death Certificates, Public Records
979.764.3500

NOTICE of MEETINGS
City Council - 2nd & 4th Thursday each month,
Planning & Zoning, Committees
979.764.3500 **www.cstx.gov**

UTILITY CUSTOMER SERVICE
Bill pay, connect / disconnect utilities
979.764.3535, 1.800.849.6623
www.epay.cstx.gov
Line breaks, sewer backups, power outages
979.764.3638 [24 hours]

WATER EFFICIENCY
Presentations, field trips, efficiency tips
979.764.6223

***EN ESPAÑOL**: Este informe incluye información importante sobre el agua potable. Si tiene preguntas ocomentarios sobre éste informe en español, favor de llamar al tel. 979.764.3502 para hablar con una persona bilingüe en español.*